REMARKS

Claims 1-17 remain pending in the application.

Claims 1-17 over Frampton, Perets and Feemster

In the Office Action, claims 1-17 were rejected under 35 U.S.C. §103(a) as allegedly being anticipated by U.S. Pat. No. 5,802,351 to Frampton ("Frampton") in view of U.S. Pat. No. 5,537,576 to Perets et al. ("Perets") and further in view of Feemster et al. ("Feemster"). The Applicants respectfully traverse the rejection.

Claims 1-7 recite a shared memory processor-to-processor mailbox between at least two processors, a first mailbox portion starting at a low physical address end of shared memory, and filling upward toward a high physical address of the shared memory, and a second mailbox portion starting at the high physical address end of the shared memory, and filling downward toward the low physical address of the shared memory.

Claims 8-17 recite an apparatus and method of utilizing a shared memory as a mailbox between two processors, comprising allowing first direction messages to utilize a dynamically allocated central portion of shared memory growing toward a second physical address end; and allowing second direction messages to utilize the dynamically allocated central portion of the shared memory growing toward the first physical address end.

It is respectfully submitted that the need to combine as many as THREE references to find the elements of the claims of the present invention is an indication of NON-obviousness of the same.

With respect to the three cited references, Frampton teaches a data interface wherein a dual port memory forms nothing more than a conventional buffer by filling up from the bottom to the top. This arrangement is quite conventional. Even the Examiner admits that Frampton fails to teach filling downward toward a low physical address. (Office Action at 2)

The Examiner cites Perets to allegedly cure this first deficiency. In particular, the Examiner cites Perets, col. 6, lines 32-41; and col. 8, lines 40-52, as allegedly teaching "filling downward toward a low physical address."

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Perets teaches **expandable** memory for a digital signal processor. Expandable memory in general teaches **away** from the present invention, as the present invention relates to the maximization of a given data space (see the title of this application). In other words, one of ordinary skill in the art desiring to **maximize a given space** would not have been motivated to look to art for expanding memory such as Perets teaches. Thus, it is respectfully submitted that Perets is improperly combined with Frampton with respect to the present invention.

Moreover, even if the combination was proper (which it is not), the combination STILL would not teach the present invention. In particular, Perets teaches arrangement of complete memory **banks** such that memory addresses are contiguous. According to Perets, a first memory **bank** is mapped as a negative offset with respect to the bottom address of a second memory **bank** such that the top address of the first memory bank has an offset of -1, and a bottom address of –(first **size**). The offset taught by Perets relates solely to the size of a memory **bank**. No teachings either in Frampton or Perets relates to the **filling** of memory downward, as claimed by claims 1-17.

The Examiner cites col. 4, lines 4-16 of Feemster as allegedly curing yet another deficiency in the combination of Frampton and Perets, i.e., a first processor as not having access to a second mailbox. Nevertheless, even the combination of Frampton, Perets and Feemster if properly combined (which they are not with respect to claims 1-17) would still not teach a shared memory mailbox wherein a second mailbox portion fills downward toward a low physical address, as claimed by claims 1-17.

Accordingly, for at least all the above reasons, claims 1-17 are patentable over the prior art of record. It is therefore respectfully requested that the rejection be withdrawn.

Conclusion

All objections and rejections having been addressed, it is respectfully submitted that the subject application is in condition for allowance and a Notice to that effect is earnestly solicited.

Respectfully submitted,

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